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ABSTRACT

Designed for the practitioner who wants a general overview of the major program development considerations necessary for accommodating handicapped persons in the out-of-doors, this paper discusses the major highlights and results of research activities conducted by the Outdoor Education for the Handicapped Project at the University of Kentucky. The first section presents a general overview of the basic concepts and philosophies of outdoor education, Federal legislation pertaining to the handicapped, and a rationale for outdoor education for the handicapped. The major portion of the paper presents a detailed description of the process used to develop and evaluate an instructional program model and products designed specifically for educators, park and resource management personnel, and parents of exceptional children. The final section features a list of 21 recommended readings and references on outdoor education for the handicapped. (Author/ERB)

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OUTDOOR EDUCATION FOR THE HANDICAPPED PROJECT:

AN OVERVIEW

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Outdoor Education for the
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Lexington, Kentucky

September 1982

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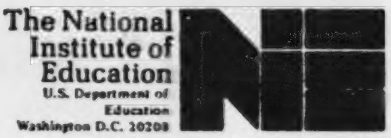

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ABSTRACT

Designed for the practitioner who wants a general overview of the major program development considerations necessary for accommodating handicapped persons in the out-of-doors, this paper discusses the major highlights and results of research activities conducted by the Outdoor Education for the Handicapped Project at the University of Kentucky. The first section presents a general overview of the basic concepts and philosophies of outdoor education and a rationale for outdoor education for the handicapped. The major portion of the paper presents a detailed description of the process used to develop and evaluate an instructional program model designed specifically for educators, park and resource management personnel, and parents of exceptional children. The final section features a list of recommended readings and references on outdoor education for the handicapped.

FOREWORD

The Outdoor Education for Handicapped Project is a three-year research and development project which has been funded to the University of Kentucky's College of Education, Center for Professional Development by the U. S. Department of Education, Office of Special Education. The intent of this paper is to provide persons having limited knowledge or expertise in the development of outdoor education programs for the handicapped with a broad overview of outdoor education programs and practices and to highlight the significant research activities and related results used to develop and validate the instructional program model. An understanding of the research and development process is essential to the full assimilation and use of the information pertaining to the resources and materials described in this paper.

The project materials and resources are currently being revised and will be available for limited distribution in early 1983. Persons desiring additional information about the project should contact:

The Outdoor Education for the Handicapped Project
110 Maxwelton Court
University of Kentucky
Lexington, Kentucky 40506

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Outdoor Education is an Interdisciplinary Approach to Teaching and Learning

EDUCATION IN THE OUTDOORS:
AN INTRODUCTION

Basic Concepts of Outdoor Education

Outdoor education is a term that is widely used and accepted by many persons of varied disciplines and backgrounds. To most, it has a very positive meaning; to some it is a word often associated with so-called non-academic situations often thought to be unnecessary, a waste of time, or frivolous. Today many school systems, parks, and outdoor education centers across the country consider outdoor education to be a vital and essential part of a child's educational program. Outdoor education is being recognized as a viable approach for meeting the learning needs of all children.

Although there are many definitions of outdoor education, it can best be described as the utilization of the outdoor environment providing students with direct, hands-on learning experiences that can enhance and enrich an existing educational program. It is not a separate discipline or subject matter, but rather an interdisciplinary approach for teaching and learning. Outdoor education offers the learner highly motivating and challenging activities that are often best achieved in an outdoor setting. It allows students to use all of their senses to explore, discover, investigate and share common experiences with their classmates, peers, friends, and family.

Education in the outdoors also involves acquiring skills, knowledge, awareness, and attitudes that are necessary for the wise use of our natural resources. As students become more involved in outdoor activities and decision making processes affecting our natural environment, they begin to develop an interest in and sensitivity toward the appreciation and conservation of the out-of-doors.

Oftentimes there is a tendency to associate outdoor education with established, sophisticated, highly developed (and funded) programs which can only occur in a camp or well-equipped outdoor laboratory. However, one of the more exciting and unique features of an outdoor education program is that it can take place in a variety of settings. School grounds, community parks, backyards, etc., can easily be transformed into an exciting learning laboratory. Basic concepts and ideas can be taught and learned (using very little equipment or materials) just as effectively in these settings as they can in others.

General Characteristics

The quality of any outdoor education program directly reflects the ability and leadership of the personnel involved in the planning and implementation. As with any program or venture, the underlying success relies on the cooperative teaming of persons with varied backgrounds, ability levels, knowledge, and expertise. Cooperative programming, whereby resources, materials, and responsibilities are shared among such persons as parents, educators, and park resource management personnel can result in better planned and implemented programs and more importantly can enable students to gain from and participate in a positive and rewarding experience.

Successful and innovative outdoor education programs may also:

1. Utilize the outdoor environment for all or most activities.
2. Provide for small group activities.
3. Allow children to explore, observe, ask questions, and make decisions regarding the wise use of our natural resources.
4. Allow children to use all of their senses to investigate and learn about the outdoors.
5. Utilize a variety of sites and settings.
6. Incorporate all subject areas (i.e., reading, math, language development, etc.).
7. Include leisure and recreational activities.
8. Allow children to learn to work and live cooperatively and independently.
9. Provide a variety of activities that are motivating and fun.
10. Facilitate social, emotional, cognitive, and physical skill development.
11. Allow students to explore possible career opportunities associated with outdoor or recreational settings (e.g., working in a state or national park).

Outdoor Education Encourages Students to Explore, Discover, and Share Common Experiences with Their Friends, Family, and Peers.

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OUTDOOR EDUCATION FOR THE HANDICAPPED

Growth and Development

Although the beginning of outdoor education for the handicapped can be traced as far back as the mid-1800's to the early 1900's, the growth of outdoor education programming for special populations as it is recognized today had its real start in the 1950's. This sudden surge of popularity was primarily attributed to the general public's awareness of the problems and frustrations that are often associated with physical and mental impairments. Professionals and parents alike began to recognize the need to provide quality educational experiences for the handicapped. As a result, the number of public school programs available for the disabled population were increased. As these public school programs were established, educators also began to recognize the value of utilizing school sites as learning laboratories for both handicapped and non-handicapped students. These programs were usually segregated by

classes for students with specific handicapping conditions. Although outdoor education programs for the handicapped had increased, specialized training for educators in outdoor education for special populations was limited.

Federal legislation greatly affected education for the handicapped in the decade of the 1960's. Legislation included appropriation of funds for teacher training, research, demonstration projects, and media materials. This legislation resulted in increased services and programs for handicapped students. As more handicapped students were placed in the public schools, they became involved in the outdoor education programs that were established through Title III of the Elementary and Secondary Education Act of 1965.

Increased programming and awareness of the needs of handicapped students in the 1960's caused many educators to evaluate the efficacy of educating handicapped students in segregated environments. Gradually, mildly

Outdoor Education Provides a Variety of Activities That Are Motivating and Fun.

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handicapped students began to be educated with non-handicapped students. This transition of programming resulted in the integration of outdoor education programs.

Federal legislation also had an impact on outdoor education programs for the handicapped in the 1970's. Section 504 of the Vocational Rehabilitation Act of 1973 was the first major civil rights legislation affecting the rights of handicapped persons. It ensures that handicapped persons can participate in federally assisted programs without discrimination. Then in 1975, P.L. 94-142 guaranteed that all handicapped students would be provided a free, appropriate public education designed to meet their individual needs. These laws were passed to ensure handicapped students equal educational rights and opportunities. Therefore, with the initiation of additional special classes in public schools and the placement of mildly handicapped students in regular classrooms in order to meet the requirements of these laws, public school programs such as outdoor education programs which had previously been available only to non-handicapped students were now available to handicapped students. Additionally, handicapped students began to be integrated with non-handicapped students in all aspects of outdoor education programs, including recreation, leisure, and camping.

Increased programming for the handicapped and integration of handicapped students in regular outdoor education programs in public schools and in parks and community resource areas resulted in an increased demand for training programs for providing outdoor education, leisure education, recreation, and camping programs for the handicapped. However, as the demand increased for these training programs, it quickly became apparent that there was a significant lack of necessary training resources and materials. In recognition of this fact and to demonstrate the support of the importance of these types of programs, the federal government (specifically the U. S. Department of Education) began to appropriate funds for personnel training and preparation, and for research and development. Recent examples of this support included funding such projects as Project EXPLORE (Expanding Programs and Learning in Outdoor Recreation and Education) - a project to develop an outdoor education/recreation curriculum model for use by handicapped children; Project TORCH (Training Personnel in Outdoor Education, Recreation, and Camping for the Handicapped) - a training project designed to provide educators, parents, and volunteers with competencies in outdoor recreation/education and camping that can be integrated into a severely handicapped child's education program; and Project EASE (Environmental Approaches to Special Education) - a project for training special educators to integrate environmental/outdoor education into their instructional programs.

Resident camps and outdoor programs had grown in number from the early 1900's to the beginning of the 1980's. Although the number of resident camps had increased, many handicapped students were being served by public school outdoor education programs. Also, many more handicapped students were becoming involved in parks and community programs. The trend by the late 1970's was to serve handicapped students, whenever appropriate, in programs with non-handicapped students, therefore, substantiating one need for personnel preparation and research and development programs.

RATIONALE FOR OUTDOOR EDUCATION FOR THE HANDICAPPED

Benefits for Students

Outdoor education can provide benefits for handicapped students regardless of the type or severity of the handicap if instruction is appropriately designed to meet the learner's unique needs. For many mildly handicapped students, only minor modifications in the instructional program are required. A review of the literature has shown that the most effective educational programs for handicapped students include (Brannan, 1981):

- direct sequenced instruction based on the same development skills as non-disabled students.
- short periods of instruction with frequent review.
- one-to-one instruction, usually required for the more severely disabled.
- individualized instruction based on the learner's needs.
- highly motivating learning environments.
- multi-sensory learning experiences.
- natural, real-life settings, tasks, and materials with instruction occurring in integrated groups (when appropriate) to assist disabled students to function in a normal setting.

Outdoor education is also cited as being especially beneficial for handicapped students in emotional, social, physical, and cognitive areas of growth and development. Other benefits include (Brannan, 1981):

1. The outdoors enables youngsters to participate in a "total" learning experience. Day-trip and residential outdoor education programs afford a fuller range of "true-life" learning opportunities not attainable in the typical school setting. During such experiences, students are able to employ self-help academic, physical, social, leisure, and work skills in the same setting.

2. Outdoor education enables the school to extend, compliment, and reinforce its current educational goals and objectives for disabled students. The natural environment provides opportunities to pursue learning related to all areas of the school's curriculum (i.e., math, reading, physical education) and to directly apply skills and concepts in order to solve daily life problems common to outdoor programming.

Exposure to the Outdoors Captures Children's Interests in Nature and Appreciation for the Nature Environment.

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3. Generalization and transfer of learning are facilitated because students apply learnings to different settings under different conditions and have the added incentive of using their knowledge and skills to solve "real life" problems encountered in the outdoor setting.

4. The outdoors can help develop skills of lifetime usefulness (i.e., self-directed behavior, problem solving behavior, observation skills, inquisitiveness). Increased responsibility for caring for one's own needs promotes problem solving; the new environment and the highly stimulating effect of nature promote inquisitiveness and independent observation of the surroundings.

5. Social development is increased through interdependence and interaction with peers and adults. Trust relationships with others are furthered; positive interpersonal relationships are formed (child-child, child-teacher, teacher-child). Extensive opportunities for group participation (i.e., tenting, singing, eating, playing) foster social skills especially related to cooperativeness and friendships.

6. Self-concept development is facilitated through numerous success experiences. Opportunities for interaction with the natural environment are limitless and flexible according to the individual's interest and ability level.

7. The variety and highly stimulating effect of outdoor activities are incentives that motivate persons to employ independent and self-initiated behaviors in order to interact with their environment. It is especially important for many severely handicapped students who often need increased motivation in order to try new experiences. Increased self-awareness is often a by-product of pursuing natural awareness.

8. Outdoor education offers innumerable opportunities for employing a complete sensory approach (i.e., tactual, olfactory) when investigating and learning about one's environment. Multi-sensory experiences are critically important for many students who are experientially deprived because of their communication problems. Opportunities abound for tactile-kinesthetic learning.

9. The outdoors is inherently motivating and therapeutic because of the fun and adventure associated with experiencing the natural environment. Actual contact with the natural environment (i.e., trees, rocks, streams, lakes, beaches, wind, mountains, deserts, animals) is always new, refreshing, and exhilarating.

10. Exposure to the outdoors captures children's inherent interest in nature and provides the logical setting for developing awareness, sensitivity, and appreciation of their natural environment. Taking time as part of an outdoor experience to discover and observe the beauty of the natural surrounding is an important objective and a "natural" time to stress and practice conservation measures.

11. Youngsters are able to "open-up" and express their individual selves through the more informal and relaxed atmosphere unique to the outdoors. Such an atmosphere brings persons "closer together," promotes increased feelings of respect and acceptance, and enhances future relationships in the school setting. The added opportunities for personal interactions in the outdoor environment between teachers and children usually generalize back to the classroom in the form of new friendships among students, more compatible working relationships (child-child, teacher-child, child-teacher), and new understanding of the individual's interests, potentials, and worth as a human being.

12. Outdoor education enables handicapped youngsters to participate in a variety of activities and settings that have important potential for recreation and leisure (i.e., camping, games, swimming, hiking, historical sites, fishing). A significant outcome of most outdoor education programs is that youngsters also gain new knowledge, skills, and interests that will enable them to make more constructive use of their leisure time.

OUTDOOR EDUCATION FOR THE HANDICAPPED PROJECT

Background

Although the growth, development, and acceptance of outdoor education programming for the handicapped has increased over the past several decades, there is still a significant lack of appropriate materials, resources, and information available which specifically addresses the programming needs for special populations and the factors which may limit or prohibit handicapped children from full and equal participation in outdoor education programs. A review of the literature has indicated the following major reasons for this dilemma: 1) failure of the majority of readily available outdoor education curriculum materials to address the specific and unique learning needs of the handicapped; 2) lack of materials and resources which assist personnel with the process of designing and implementing an outdoor education program for disabled populations; 3) lack of awareness and training opportunities for educators, parents, and park

One-to-one Instruction is Usually Required for the More Severely Handicapped.

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resource personnel on the value and importance of outdoor education for this segment of the population; and 4) existing man-made, natural, and attitudinal barriers which may prohibit certain groups of disabled consumers from participating in these programs.

Additionally, the majority of information that is available in the field does not adequately address the interdisciplinary teaming or the cooperative approach to outdoor education program development. The ultimate success of any educational program, especially those in outdoor education, will depend upon the cooperation and coordination among all persons and/or agencies involved. This interdisciplinary relationship, whether in the home, community, or school, is vital for effective planning, implementation, and evaluation to occur in all aspects of education for handicapped students.

Purpose

With these reasons in mind, the Outdoor Education for the Handicapped Project was conceptualized and designed to further research and study these and other factors affecting the growth and development of outdoor education programs for the handicapped. The broad, overall purpose of this project was to develop, field test, and disseminate an instructional program model

Creating Teachable Moments While Exploring the Natural Environment.
(Photo Courtesy of Norm Skliar)

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designed to provide educators (special and regular educators, administrators, etc.), parents of exceptional children, and park and resource management personnel with a comprehensive resource to aid in the cooperative planning and implementation of outdoor education programs for all handicapped children and youth. The content and approach of the instructional program were primarily developed for those persons with little or no knowledge of the basic concepts, techniques, and philosophy of outdoor education programming (i.e., the "beginner") and for persons who may have the appropriate background but lack the skills or expertise in outdoor education program development for special populations. Thus, the design, content, and approach of the instructional model were developed to address the major factors previously identified as being essential for effective program planning and development.

Materials Development Process

To further document and reinforce the need for the project and to support the evidence found in the initial literature review, a series of six steps were identified to assist the project staff to determine the exact content and focus of the materials and to ensure that they would meet the needs of the target audiences. These steps were as follows:

1. to conduct a comprehensive literature search and review
2. to conduct a national survey of outdoor education centers and programs
3. to identify and validate the competencies needed by the parents, educators, and park personnel
4. to design a systems model for outdoor education program development that is based on the identified competencies
5. to conduct a prototype review (pilot test) of the materials
6. to field test the materials on a national level

The components of the program model (both in the initial and current form) included a series of six guides and resources: a book of readings; a book of case studies; a resource guide; and facilitator guides for educators, parents, and park and resource management personnel (the content of each of these resources is described in the section beginning on page 15).

The six steps briefly described below explain the materials development process used.

Literature Search and Review. An extensive and comprehensive literature search was conducted for the purpose of reviewing and collecting information on the state-of-the-art of outdoor education for the handicapped. Outdoor education curricula materials and resources were

identified and analyzed to determine the implications for the design and content of the overall instructional program. The search also provided information on current outdoor education program practices and techniques that were being implemented for handicapped students on a national level. As was anticipated, two major findings resulted: 1) There was a significant lack of materials, resources, and information available which were specifically designed to meet the needs of the handicapped as compared with the resources available for the general population; and 2) the majority of information available did not address the specific needs of parents, educators, and park personnel as related to outdoor education program development for special populations.

Survey of Outdoor Education Centers and Programs. Concurrently with the literature search and review, a questionnaire was developed and sent to over 600 outdoor education centers and programs to determine: 1) if they served the handicapped; 2) to what extent they served the handicapped; 3) who was responsible for conducting programs for the handicapped; and 4) any training given to prepare outdoor education personnel to serve the handicapped. Several surprising and significant findings resulted from this survey. For example, a majority of the outdoor education programs indicated that they served the handicapped but were largely segregated and limited in their program offerings. Most of the facilities were not accessible to the physically disabled, and the majority of program personnel were not specifically trained to work with handicapped populations. In addition, an overwhelming number of programs indicated that more materials and resources were needed to help them better accommodate and serve this segment of the population.

Competency Identification and Validation. To assist the project staff with identifying the specific areas that were needed by the target audience for outdoor education program planning and implementation, a competency identification workshop was conducted during the early months of the project. Twenty-four participants, representing educators, parents, and park personnel, participated in a two-day, highly controlled process which resulted in the generation of a listing of competencies that were identified as being essential to outdoor education program development. Following this workshop, the competencies were further validated by selected persons, again representing each of the three target audiences. These competencies (listed below) served as the basis for the development of the instructional model.

Educators

1. To demonstrate an understanding of unique characteristics and considerations relating to various handicapping conditions.

2. To demonstrate an understanding of recent state and federal legislation that supports outdoor education programs for the handicapped.

3. To demonstrate an understanding of the underlying principles and philosophy of outdoor education.

4. To demonstrate an understanding of handicapping conditions as related to outdoor education program development.

5. To demonstrate an understanding of various techniques and approaches employed in outdoor education programs.

6. To demonstrate an understanding of the diagnostic/prescriptive instructional process in support of outdoor education programming.

7. To demonstrate an understanding of various methods of integrating outdoor education into the IEP (Individualized Education Program) format.

8. To demonstrate the ability to adapt or modify currently existing outdoor education materials and programs to fit the individual needs of the handicapped.

9. To demonstrate the ability to identify and utilize support personnel and resources within the home, schools, and community to assist in the implementation of an outdoor education program.

10. To demonstrate an understanding of various methods used to evaluate the overall outdoor education experience.

Sensory Learning to Develop Awareness and Increased Knowledge.
(Photo Courtesy of Norm Skliar)

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Park and Resource Management Personnel

1. To demonstrate an understanding of the unique characteristics and considerations relating to various handicapping conditions.

2. To demonstrate the ability to determine the educational and physical needs of the populations being served to aid in the development of quality outdoor education programs.

3. To demonstrate an understanding of the need for trained and aware personnel to support the educational and physical needs of the handicapped.

4. To demonstrate the ability to ensure the involvement of consumers and/or consumer advocates in the planning and designing of outdoor education programs and facilities.

5. To demonstrate the ability to adapt or modify current outdoor education program models and/or materials to fit the individual needs of the handicapped.

6. To demonstrate an understanding of the need for mutual cooperation among park and resource management personnel, educators, and parents of the handicapped for providing quality outdoor education programs.

7. To demonstrate an understanding of various methods used to evaluate the overall outdoor education exprience.

Parents or Guardians

1. To demonstrate an understanding of the underlying principles and philosophy of outdoor education.

2. To demonstrate an understanding of recent state and federal legislation that supports outdoor education programs for the handicapped.

3. To demonstrate an understanding of the background and training of outdoor education personnel within the school and community settings.

4. To demonstrate the ability to coordinate with school and park resource personnel to provide constructive input in the design and implementation of outdoor education programs and facilities.

5. To demonstrate the ability to promote outdoor education as part of the student's IEP or IIP (Individualized Instruction Program).

6. To demonstrate the ability to act as advocates for mainstreaming the handicapped into all outdoor education programs.

7. To demonstrate the ability to serve as an advocate to promote outdoor education within the school, home, and community settings.

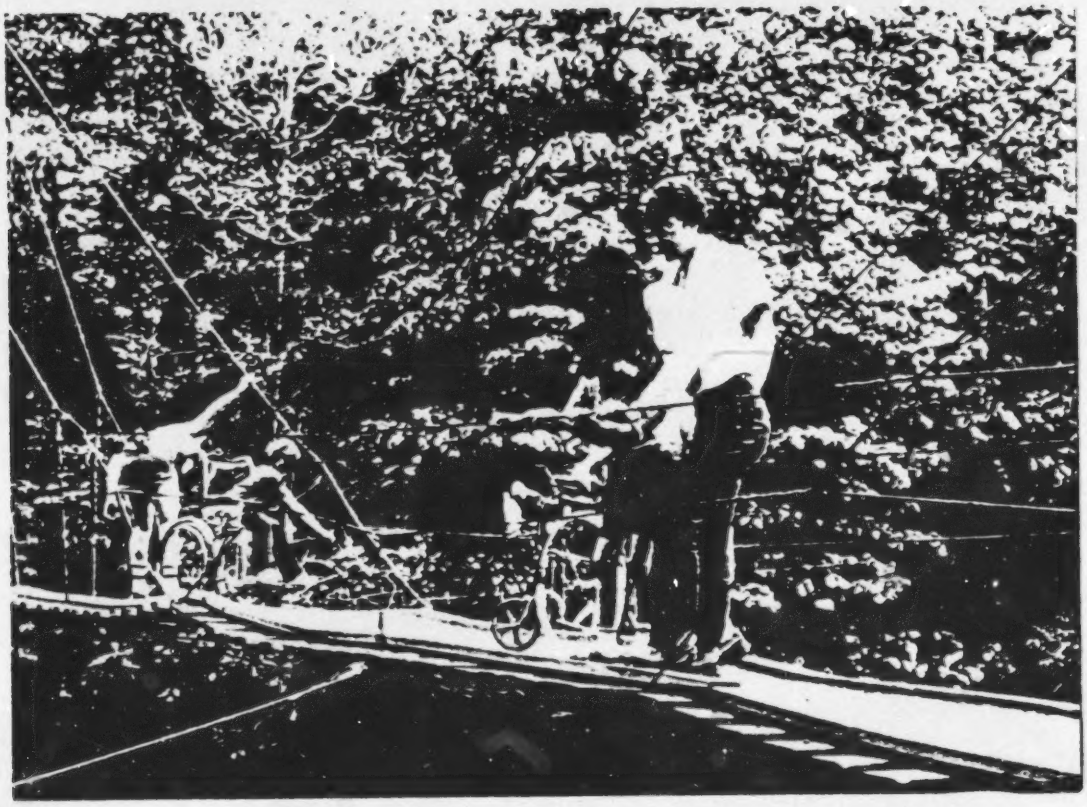
8. To demonstrate the ability to recognize the values of outdoor education as opportunities to pursue leisure time activities.

It was interesting to note that many of the competencies identified by the workshop participants supported the significant findings and results from the literature search and the survey of outdoor education programs.

Systems Model for Outdoor Education Program Development. Based on the above competencies, a systems model for outdoor education program design and development was prepared by the project staff for the purpose of further defining the exact approach and desired content of the instructional program materials. The model includes six components and sub-components which were designed to facilitate the instructional process of assessing, developing, individualizing, implementing, and evaluating outdoor education programs for the handicapped. The instructional materials were then developed into draft format and prepared for the first phase of the evaluation process.

Materials Evaluation and Review. The materials were prepared in draft form and reviewed first by a panel of experts and practitioners again representing each of the three target groups. Recommendations were made as to how the materials might be improved or revised, based on the panel member's role and responsibility as an educator, parent, or park and resource program representative. Then the materials were once again revised and prepared in field test edition format. This second phase of evaluation was conducted on a national level and involved five outdoor education programs and centers from the four states of Maryland, New York, Illinois, and Kentucky. The field test process was conducted on two different levels. First, the participants (which included representatives from each of the three facilitator groups of parents, educators, and park and resource personnel) from New York, Maryland, and Illinois reviewed the materials during an intensive three-day session. Specific comments and suggestions were again provided to the project staff on how the materials should be revised. The second phase of national field testing involved two sites from Kentucky which had previously not been involved in any formal outdoor education programming for the handicapped. The purpose of this was to obtain specific feedback concerning the usefulness and appropriateness of the materials from a "beginners" point of view. As a result, each of the two Kentucky sites utilized the project materials and resources to actually plan and implement a pilot outdoor education program for handicapped students. The results and outcomes of these pilot programs have been included in the case study publication.

All of the evaluation processes were conducted by an outside third party evaluation consulting agency which provided non-biased objective feedback critical to all developmental stages of materials production. At this writing, the results of the national field testing effort have been compiled and analyzed and are currently being used to develop the design of the final product.



Outdoor Education Utilizes the Outdoor Environment for All on Most Activities

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Description of Project Materials and Resources

The significant findings resulting from the research activities that were conducted during the early stages of the project (discussed in the previous section) played a very important role toward the development of the final products. As mentioned previously, the original design of the materials consisted of a series of six individual guides and supplemental resources which included facilitator guides for parents, educators, and park and resource management personnel; a book of readings; a guide to resources and programs in outdoor education for handicapped; and a book of case studies. Although much of the material contained in these guides will remain the same, it was recommended by the field test participants that the materials be changed to take on a slightly different approach and format. The project staff is currently in the process of revising the materials and resources for the final time.

In the following section, a brief overview and description of the materials are provided, highlighting the more important concepts, ideas, and information that will be included in the final products.

Facilitator Guides for Parents, and Park and Resource Management Personnel

The concept and purpose of the facilitator guides is to provide the three facilitator groups specific information on how to design and implement an outdoor education program for handicapped students. The content and format of the books follow the developmental steps of assessing, developing, individualizing, implementing, and evaluating as outlined in the systems model described in the previous section. Although the developmental process will be similar for all three, it has been determined by the comments and suggestions received from the field test participants that each group will require information specific to their individual group planning needs. For example, park and resource management personnel desire information describing the major handicapping conditions and how to make their facilities and programs accessible. Educators, on the other hand, want resources and information for integrating outdoor education into an IEP and/or classroom program. To illustrate these examples further, a description of each of the three facilitator guides with highlights of the major sections specific to each facilitator group, has been provided below.

Educators. The information contained in this guide specific to the needs of educational personnel includes:

- Individualized Planning - how to integrate outdoor education into a child's educational program of study.
- Cooperative Program Planning - how to work with and utilize parents, park and resource personnel and other educators in developing an outdoor education program for handicapped students.
- Conducting a Needs Assessment - explains the mechanics of developing and conducting needs assessments in the home, school, and community.
- Determining Possible Outdoor Education Program Models - describes the variety of models and settings in which handicapped students may participate and assist educators with selecting the most appropriate program according to students' needs.
- Determining Funding and Cost Considerations - discusses the potential costs of various outdoor education program models and provides some information relative to fund-raising ideas and funding solutions.
- Curriculum Design and Development - discusses the role of the planning committee in determining the outdoor education curriculum content and approach.
- Personnel Preparation and Training - provides information for orienting and training personnel prior to the outdoor education program and includes various sample permission forms and other related information about the outdoor education program to the community and discusses ways to establish positive public relations.

- Evaluation and Follow-Up - describes several options available for evaluating and documenting the success or problems of the program; also suggests ways for implementing follow-up strategies.

Park and Resource Management Personnel. While much of the same information that was included in the educator guide is also included in the guide for park personnel (i.e., needs assessment, funding, curriculum design and development, evaluation, etc.) sections have also been added which address this group's specific needs. For example:

- Understanding the Needs of the Handicapped - includes discussions on eliminating architectural and attitudinal barriers, approaching the disabled individual, and characteristics and definition of special populations.

- Designing Accessible Environments - discusses design considerations for the physically disabled and guidelines and checklists for making outdoor facilities accessible; also includes suggested ways for adapting or modifying outdoor education equipment and activities.

Outdoor Activities Can Facilitate Social, Emotional, Cognitive, and Physical Skill Development.

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- Role of Park Personnel in the IEP Process - describes current legislation and possible role of various park and recreation programs in the handicapped child's educational program.

Parents of Exceptional Children. The content in the facilitator guide for parents has a slightly different approach than the guides for educators and park personnel. Realizing that the educators and park staff will, in most cases, take the leadership to design and implement an outdoor education program, the parents' role is perceived as being a primary support person. Thus, the content of the parent's guide reflects this role.

- Overview of Outdoor Education - describes the basic philosophy and concepts of outdoor education.

- Determining the Appropriate Program Model - includes questions parents should ask about an outdoor education program and various sample forms and schedules.

- Parents Role in an Outdoor Education Program - discusses ways parents can become involved through various activities such as preparing the student for the experience, working with educators and park staff, and obtaining community support for the outdoor education program.

- Follow-Up Activities - suggests ways in which parents can reinforce the outdoor education experience in the home, school, and community.

In addition, the three facilitator guides include an annotated bibliography of selected readings and references and a listing of audio-visual resources all specific to outdoor education programming for the handicapped.

Supplementary Resources and Materials

The last three resources that have been developed by the project are designed to support and augment the information found in the three facilitator guides. These resources are also designed to be used as a separate source of information primarily for persons wanting additional reading and reference materials rather than the facilitator guides which describe a specific program development process. A description of the content and format of the materials follows:

Readings in Outdoor Education for the Handicapped. This source consists of a collection of readings which have been written by noted professionals in the field of outdoor education for the handicapped. It provides the reader with general background information addressing some of the more current and topical issues in outdoor education programming for the handicapped. For example, the chapters include information of the general characteristics, philosophies, and attributes of a successful outdoor education program for both handicapped and non-handicapped students; the role of parents, educators, and park personnel in the design and

development of outdoor education programs for special populations; information on making facilities and programs accessible and usable by disabled consumers; and a discussion of the holistic approach (i.e., mainstreaming) to outdoor programming for the handicapped. The publication also cites several examples of innovative and common program practices which include handicapped children and provides practical and useful suggestions practitioners can apply to their own program.

Innovative Approaches to Outdoor Education Programs for the Handicapped. This resource describes fifteen innovative outdoor education programs and centers which include handicapped students in their program curriculum. A detailed description of each program is provided which includes an overview of purpose and goals; facility and site description; administrative structure; program emphasis for the disabled; funding sources and operating budgets. The programs described represent several geographic regions of the United States. The resource discusses a wide variety of techniques and approaches to outdoor education common to many programs across the country and provides examples of mainstreamed and segregated programming models serving all types of disabled populations. There are also examples of the cooperative teaming approach utilizing parents, educators, and park personnel. In addition, the publication includes examples of smaller, less sophisticated outdoor education programs and describes the process used to plan and conduct the programs. This resource is especially useful for persons wanting practical program ideas and applications. The programs described in this book are as follows:

Babler Outdoor Education Center for the Handicapped
Missouri

Bradford Woods Outdoor Education, Recreation, and Camping Center
Indiana

Camp Confidence
Minnesota

Carter Caves State Park Outdoor Education Program
Kentucky

Colorado Outdoor Education Center for the Handicapped
Colorado

Courage Center Outdoor Education Programs
Minnesota

Eckerd Wilderness Educational Camping System
Florida

Georgia State Camping Program for the Handicapped
Georgia

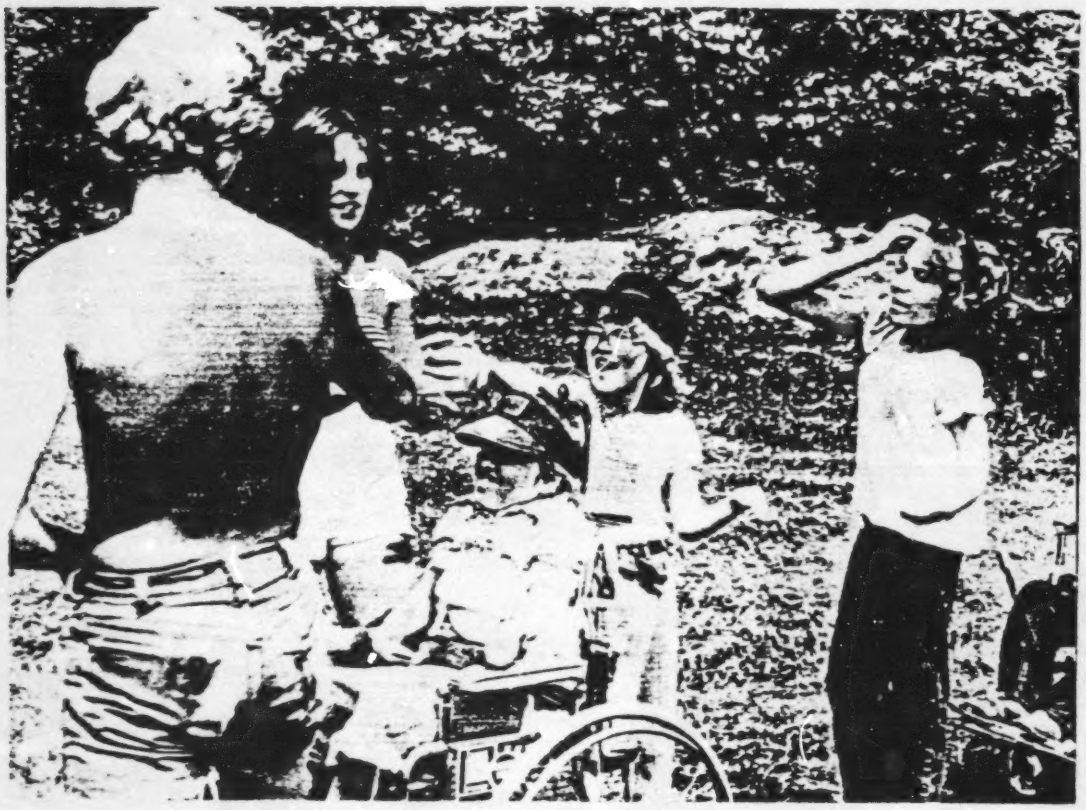
Lathrope E. Smith Outdoor Education Program
Maryland

Minnesota Outward Bound
Minnesota

Mt. Hood Kiwanis Camp
Oregon

Nassau BOCES Outdoor and Environmental Education Center
New York

Santa Fe Mountain Center
New Mexico



Outdoor Education Allows Children to Learn to Work and Live Cooperatively and Independently.

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A Guide to Resources and Programs in Outdoor Education for the Handicapped. The content of this guide was developed as a result of the information gathered from both the literature review and the national survey of outdoor education programs and centers. The content and organization of this resource are as follows:

Annotated Bibliography of Selected Resource. in Outdoor Education for the Handicapped

Outdoor Education Resources - Special
Listing of outdoor education resources specifically for the handicapped

Outdoor Education Resources - General
Listing of general outdoor education resources that can be adapted for special populations

Funding Resources
Resources to help locate funding for outdoor education programs

Accessibility Resources
Includes current listing of resources to make outdoor sites accessible

Journals and Newsletters - Special
Listing of journals and newsletters in outdoor education with emphasis on special populations

Journals and Newsletters - General
Listing of outdoor education equipment and materials catalogs

Resource Catalogs
Listing of outdoor education equipment and materials catalogs

Organizations Concerned with Outdoor Environmental Education
Additional resources for persons to contact

State Outdoor and Special Education Directors
Names and addresses of all state directors

Colleges and Universities
Colleges and universities that have therapeutic recreation or outdoor education programs

Publishers
Addresses of publishers for above listings

Subject Index
Cross references bibliography entries

Annotated Directory of Selected Outdoor Education Programs Serving the Handicapped. Includes over 200 outdoor education programs and centers serving disabled populations. Names, addresses, and contact persons are provided for each entry.

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Personnel Training is Necessary to Ensure Quality Programs.

CONCLUSION

Although the funding support of the Outdoor Education for the Handicapped Project will end as of December 1982, efforts will be continued to ensure the growth and development of outdoor education programs for all persons, including the handicapped. Significant gains have been made over the past several years in this field, and the momentum must continue. Whether at the federal, state, or local level, funding and support of personnel preparation and training of research and development demonstration programs are necessary to make certain that handicapped children receive these educational opportunities. In any case, the success of the program must rely on the cooperative, interdisciplinary relationship among all agencies, organizations, and persons involved.

The guides and resources described in this paper will continue to be tested and revised. Because new programs are created every year, it will be important to keep abreast of any new developments in the field, including any changes in current state and federal legislation affecting the growth of outdoor education programs and the rights of disabled citizens.

REFERENCES

Literature Cited

Brannan, Steve A. EXPLORE Program. Portland, Oregon: EXPLORE Education, 1981.

Recommended Readings and Resources in Outdoor Education for the Handicapped

American National Standard Specification for Making Buildings and Facilities Accessible to and Useable by Physically Handicapped People. (American National Standard Institute A 117.1-80.) New York: American National Standard Institute, 1980.

Ascarelli, Anna. "Nature Study and the Handicapped." Nature Study, 2:1-2, 1977.

Basic Steps in Planning Outdoor Education Day-Camping Programs. A Definitive Statement to Assist Teachers Involved in Day-Camping Programs. Jericho, NY: Nassau County Board of Cooperative Services, 1971.

Beechel, Jacques. Interpretation for Handicapped Persons: A Handbook for Outdoor Recreation Personnel. Seattle, WA: National Park Service Pacific Northwest Region, 1975.

Brannan, Steve A. EXPLORE Program. Portland, Oregon: EXPLORE Education, 1981.

Brannan, Steve A., et. al. What is Leisure Education for the Handicapped? A Primer. Washington, D.C.: Hawkins and Associates, Inc., 1981.

Cormany, Robert B. "Outdoor Education for the Retarded Child." Education and Training of the Mentally Retarded, 9:2:66-69, 1974.

Cornell, Josephy B. Sharing Nature with Children. Nevada City, CA: Ananda Publications, 1979.

Dustin, Daniel L., and David A. Daly. "A Therapeutic Camp for Communicatively Handicapped Youths." Therapeutic Recreation Journal, 12:24-29, 1978.

Dykstra, Ralph R. Outdoor Education for the Handicapped. Albany, NY: New York State Education Department, 1973.: (ERIC Document Reproduction Service No. ED 105 672, 1973).

Frant, R. D., and others. "Learning Through Outdoor Adventure Education." Teaching Exceptional Children, 14:4:146-151, 1982.

Hammerman, William, Ed. Fifty Years of Resident Outdoor Education: 1930-1980. Martinsville, IN: American Camping Association, 1980.

Hedberg, Sally. "Outdoor Education Can Help the Handicapped." Journal of Health, Physical Education and Recreation, April-May, 1980.

Krause, Debbie. Designing Barrier-Free Areas. Ithaca, NY: Cornell University, 1980.

Lishner, Mark. "Outdoor Education." Camping Magazine, 10:12-14:50, 1981.

McGrath, Ray. "Environmental Resource Center: Making the Outdoors Available to the Handicapped." Journal of Health, Physical Education and Recreation. 44:46-48, 1973.

Parents' Guide to Accredited Camps, Martinsville, IN: American Camping Association, 1982.

Parents' Guide to Outdoor Education. ERIC Document Reproduction Service No. ED 075 140, 1968. New York: Westbury Public Schools, 1968.

Robb, Gary, et al. Special Education in the Natural Environment (Resource Guide and Training Manual). Martinsville, IN: Indiana University, 1981.

Shea, Thomas, and others. "Outdoor Living and Learning Compliment Each Other." Teaching Exceptional Children, 4:3:108-118, 1972.

Stone, Edward H. "There's a Wheelchair in the Woods." Parks and Recreation, 6:12:18-21; 48-49, December 1971.

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